

U.S. DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
MEDFORD DISTRICT  
ASHLAND RESOURCE AREA

ENVIRONMENTAL ASSESSMENT

FOR

JONES RIGHT-OF-WAY (R/W)

EA OR-116-03-05

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
ASHLAND RESOURCE AREA

EA COVER SHEET

**Project Name/Number:** Jones R/W EA; OR-116-03-05

**Location:** Ashland Resource Area

Specialist	Title	Resource Value
Joe Hoppe	Realty Specialist	Team Lead
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Bill Yocum & Kristi Mastrofini	Environmental Planner/Coord.	NEPA Format/Adequacy

## **I. INTRODUCTION**

### **A. Need for Proposal**

The Bureau of Land Management (BLM) received a request to modify an existing right-of-way grant to provide improved access to property owned by Vaughn and Rona Jones in the SW¼ of Section 30, T. 38 S., R. 4 W., Willamette Meridian.

### **B. Conformance with Existing Land Use Plans**

The proposed activities are in conformance with and tiered to the *Medford District Record of Decision and Resource Management Plan* (RMP) (USDI 1995b) as amended by the *Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines* (Amended Northwest Forest Plan) (USDI, USDA 2001). The Medford District Resource Management Plan incorporates the *Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl and the Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl* (NWFP) (USDA and USDI 1994). These documents are available at the Medford BLM office and the Medford BLM web site at <http://www.or.blm.gov/Medford/>.

### **C. Relationship to Statutes, Regulations, and Other Plans**

The proposed action and alternatives are in conformance with the direction given for the management of public lands in the Medford District by the Oregon and California Lands Act of 1937 (O&C Act), Federal Land Policy and Management Act of 1976 (FLPMA), the Endangered Species Act (ESA), and the Clean Water Act.

### **D. Decisions to Be Made**

The Ashland Resource Area Field Manager must decide whether or not to implement the proposed action as described in Chapter II, Alternatives, or whether to select the no-action alternative. This environmental assessment (EA) is being prepared to determine if the proposed action or the No Action Alternative would have a significant effect on the human environment thus requiring the preparation of an environmental impact statement (EIS) as prescribed in the National Environmental Policy Act of 1969 (NEPA). It is also being used to inform interested parties of the anticipated impacts and provide them with an opportunity to comment on the various alternatives.

## **II. ALTERNATIVES**

### **A. Proposed Action Alternative**

Amend the current authorization by providing for an alternate route to access Vaughn Jones land located in the SW¼ of Section 30, T. 38 S., R. 4 W, Willamette Meridian. Vaughn Jones currently has legal access to his parcel through BLM authorization OR 54585 FD using existing roads including the short spur labeled on the map as segment A. The proposed alternate route (Segment B) would transfer the authorization from the old route to the proposed new route (Segment A to Segment B). If the proposed action is approved, segment B would then provide the connecting access to the private land and segments A and C would be decommissioned.

Construction of the new road and the decommissioning of the old segment of road would occur in the dry season (May 15 – October 15). This restriction may be waived under dry conditions.

The new road segment would be designed and surfaced for all season use (adequate culverts for 100 year flood and a minimum of 8 inches of rock).

Off-highway Vehicle (OHV) use is limited to existing roads and designated trails in the Ferris Gulch Area (RMP p. 66-67). The decommissioned road segments would include permanent blockades and would no longer be open to OHV use. Additionally, the segment crossing Ferris Gulch (Segment A) would be blocked with down trees and brush to prevent any illegal OHV use.

The section of Segment A from Ferris Gulch over to the unnamed tributary/pond would be naturally decommissioned (no ground disturbance – use brush/log placement only). The remainder of Segment A would be decommissioned and waterbarred mechanically.

The pond along Segment A, formed due to (presumably) plugged culvert on the intermittent stream, would be left as-is; the culvert would not be unplugged; this would allow the stream to continue to flow over road.

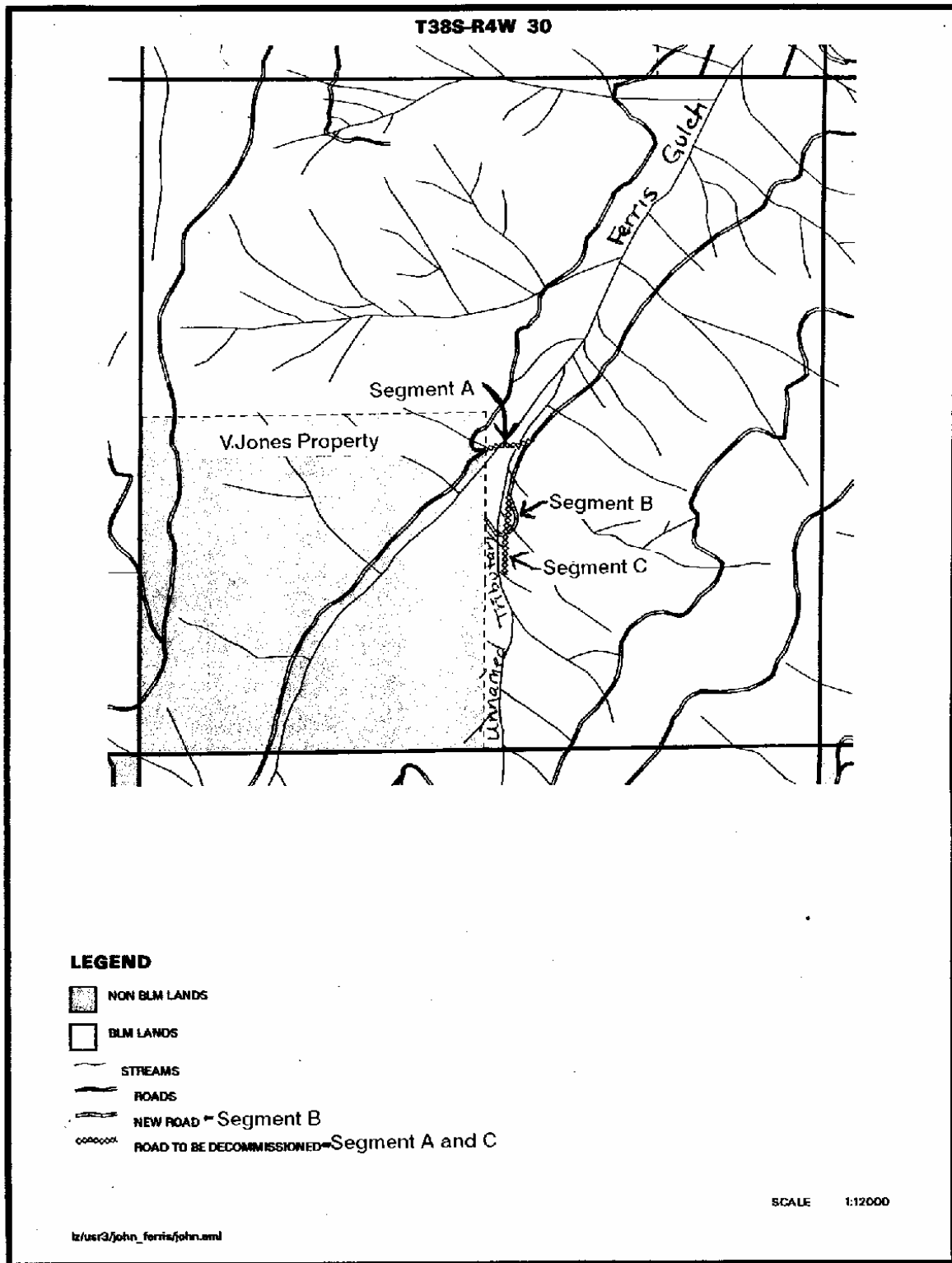
All disturbed soil areas would be seeded and mulched with an erosion control seed mixture prior to the onset of the rainy season.

**Opportunity:** Request the landowner to place waterbars on the portion of the road (located on private land) angling uphill from the west side of the Ferris Gulch stream crossing; this road contributes flow and sediment directly to the stream for most of the winter. Waterbars would dissipate flow and sediment along the road prior to where it intersects the stream crossing.

### **B. No Action Alternative**

Do not approve Vaughn Jones request for alternate access to his land in the SW¼ of Section 30, T. 38 S., R. 4 W. Vaughn Jones would access his land through the current BLM R/W Grant (Segment A).

Map 1. Proposed Road Construction and Road Decommissioning (Proposed Action)



### **III. AFFECTED ENVIRONMENT**

Vascular Plant Species: The proposed road construction area in T. 38 S., R. 4 W., section 30 was surveyed for Bureau Special Status and Survey and Manage vascular plants as well as the federally listed *Fritillaria gentneri* by BLM botanists in April 2003. No Survey and Manage, Bureau Special Status, or Federally listed plants were found within the boundaries of the proposed project area.

Nonvascular Plant Species: The proposed road construction area in T. 38 S., R. 4 W., section 30 was surveyed for Bureau Special Status and Survey and Manage nonvascular plants by BLM botanists in April 2003. No Survey and Manage or Bureau Special Status nonvascular plants were found within the boundaries of the proposed project area.

Noxious Weeds: The proposed road construction area in T. 38 S., R. 4 W., section 30 was surveyed for noxious weeds by BLM botanists in April 2003. No noxious weeds were located within the project area boundary.

Soils: The soil identified in the proposed new road location is the Vannoy silt loam, 12 to 35 percent north slopes. This moderately deep, well drained soil is on hillslopes. It formed in colluvium derived from metamorphic rock. Elevation is 1,000 to 4,000 feet. The mean annual precipitation is 20 to 40 inches, the mean annual temperature is 46 to 54 degrees F, and the average frost-free period is 100 to 160 days. The native vegetation is mainly conifers and hardwoods and an understory of grasses, shrubs, and forbs. Typically, the surface is covered with a layer of needles, leaves, and twigs about 3/4 inch thick. The surface layer is dark brown silt loam about 4 inches thick. The next layer is reddish brown silt loam about 7 inches thick. The subsoil is yellowish red clay loam about 27 inches thick. Weathered bedrock is at a depth of about 38 inches. The depth to bedrock ranges from 20 to 40 inches. In some areas the surface layer is gravelly or very gravelly loam.

Permeability is moderately slow in the Vannoy soil. Available water capacity is about 5 inches. The effective rooting depth is 20 to 40 inches. Runoff is moderate, and the hazard of water erosion is moderate.

Cultural: Cultural resource surveys have been completed. The proposed project does not impact any known cultural resources.

Fish: Ferris Gulch is a small, perennial, north-aspect drainage located in the Middle Applegate Watershed. It drains forested (mixed Oak, Ponderosa Pine, and Douglas-Fir) slopes managed for timber. The lower 1.5 miles of Ferris Gulch flows through private lands, including a private gravel quarry, before its confluence with the Applegate River.

Riparian Habitat conditions are degraded in this lower half of the drainage. Ferris Gulch flows through an entrenched channel completely lacking riparian vegetation through the quarry, and a crude dam blocks its outlet from the quarry. Large sediment deposits above this dam are visible from Ferris Gulch road. Extensive past mining operations have also had negative impacts to this lower drainage.

Conditions are degraded in the upper half of this drainage as well; flows from Ferris Gulch and several small tributaries are intercepted by poorly located and designed roads (including the road currently used by the landowner to access his property under the existing right of way

agreement), inducing erosion and sediment transport into lower reaches of the creek. It appears as if the dam at the gravel quarry is currently capturing a large quantity of this sediment. Heavy use by off-highway vehicles (OHV'S) in many areas of the upper drainage basin is contributing to erosion as well (Middle Applegate Watershed Analysis).

Water rights (4.38 cubic feet per second) currently exceed estimated August stream flows (.006 cubic feet per second), potentially leading to de-watered channels in Ferris Gulch during summer and drought periods (Middle Applegate Watershed Analysis).

Presence of fish in Ferris Gulch has not been documented. It is likely that summer steelhead (*Onchorynchus mykiss*) and cutthroat trout (*O. clarki*) were at times historically present in this stream, especially in lower reaches. Two man-made barriers currently impede fish migration up this small stream; a bad culvert that drops several feet at its outlet under highway 238 (approximately river mile 0.3 of Ferris Gulch), and the dam below the quarry are both complete fish passage barriers.

The Middle Applegate River supports native populations of summer and winter steelhead, cutthroat and rainbow trout, chinook salmon (*O. tshawytscha*), coho salmon (*O. kisutch*) listed as threatened under the Endangered Species Act (ESA) in 1997, and Pacific lamprey (*Lampetra tridentata*).

On May 5, 1999, the former National Marine Fisheries Service (NMFS) designated Coho Critical Habitat (CCH) for the threatened Southern Oregon/Northern California (SONC) Coho salmon. Critical habitat includes "all waterways, substrate, and adjacent riparian zones below longstanding, naturally impassable barriers". It further includes "those physical or biological features essential to the conservation of the species and which may require special management considerations or protection...". Historical presence of coho has never been documented in Ferris Gulch, though it is possible that given ample stream flows they could utilize lower reaches of the stream as spawning habitat. Ferris Gulch is a perennial stream, and as such could support populations of juvenile coho that would rear in the stream. However, given its small size, it is unlikely that coho would have been historically present in anywhere but the lowest reach. Based on stream size and gradient, CCH has been estimated to include the lower 0.3 miles of Ferris Gulch (roughly the current location of the private gravel quarry).

Essential Fish Habitat (EFH) has been defined by NMFS as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." This definition includes all waters historically used by salmonids. Steelhead and cutthroat trout likely were historically present in Ferris Gulch, and the lower 2 miles of Ferris Gulch main-stem are considered EFH.

Hydrology: Historically, the riparian area along this section of Ferris Gulch was the subject of intensive mining activity. Old mining scarps and tailing piles are evident throughout this section. BLM stream survey crews surveyed this area in 1997, identifying stream locations and types. Ashland Resource Area hydrologist revisited the site in May, 2003.

The existing road Segment A crosses Ferris Gulch, a perennial tributary to the Applegate River, and crosses an unnamed long duration intermittent tributary to Ferris Gulch. Both of these crossings are stream fords. Because of the wide, flat riparian area, Ferris Gulch flows down the road for a short distance – not because the road is diverting the flow, but because the road is built in the stream. In addition to providing access to the V. Jones property, Segment A is used regularly by OHVs; several OHV trails/roads on private land converge just to the west of the

stream ford. Rainfall runoff flows continuously down this road into the stream ford during the winter months, adding to peakflow levels and delivering sediment to the stream. A pond along Segment A formed many years ago, apparently from a culvert becoming plugged on the unnamed tributary. The pond, associated stream channel, and road fill holding back the pond are stable.

Existing road segment C runs parallel to an unnamed Ferris Gulch tributary. In several places, the road is within the flood prone area of the tributary, with high potential for diversion of the stream down the road during high flow events. This segment channels water down the road surface throughout the winter and spring, resulting gullying of the road and sediment delivery to the downstream aquatic system.

Wildlife: The proposed road construction area was determined not to be suitable habitat for any threatened, endangered, or special status wildlife species with the possible exception of *Monadenea (spelloing) churchii* (a mollusk). The BLM wildlife biology staff conducted surveys for this species in the proposed road construction area in the fall of 2003. Results of these surveys were negative, no *Monadenea (spelloing) churchii* were found and no other mollusk species were detected. The proposed project is not in USFWS designated critical habitat for any terrestrial wildlife species. The proposed project occurs in deer winter range, but not within Oregon Department of Fish and Wildlife or BLM designated critical winter range.

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#### **IV. ENVIRONMENTAL CONSEQUENCES**

##### Proposed Action Alternative; Vascular Plant Species

The Action Alternative would have no direct, indirect or cumulative affect on any Bureau Special Status, Survey & Manage, or Federally listed vascular plant species.

##### Proposed Action Alternative; Nonvascular Plant Species

The Action Alternative would have no direct, indirect or cumulative affect on any Bureau Special Status or Survey & Manage nonvascular plant species.

##### Proposed Action Alternative; Noxious Weeds

The proposed road construction could enhance the spread of noxious weeds. Heavy equipment used in road construction would disturb the existing soil condition making the site more suitable for noxious weed establishment. The same equipment can serve as a weed source by transporting weed seeds to a disturbed site. The project design features would require heavy equipment to be washed prior moving equipment into the project area and daily during construction activities.

##### No Action Alternative; Vascular Plant Species

The No Action Alternative would have no direct, indirect or cumulative affect on any Bureau Special Status, Survey & Manage, or Federally listed vascular plant species.

##### No Action Alternative; Nonvascular Plant Species

The No Action Alternative would have no direct, indirect or cumulative affect on any Bureau Special Status or Survey & Manage nonvascular plant species.

##### No Action Alternative; Noxious Weeds

The No Action Alternative would have no affect on the spread of noxious weeds.



#### Proposed Action Alternative; Soils

The proposed alternative (including proposed PDFs) would have minimal effect to the soil resource. Decommissioning the existing route would decrease erosion associated with the low water ford and actually decrease the amount of local erosion.

#### No Action Alternative; Soils

The No Action Alternative would result in the continued use of the low water ford to access the property. This would result in continued moderate increase in soil erosion (over natural rates) in the ford area that goes directly into the local creek.

#### Proposed Action Alternative; Fish

This alternative proposes to construct a new road (located farther away from the stream corridor of Ferris Gulch) to access the landowner's property, and decommission the current segment of road (segment A) located within the Riparian Reserve of Ferris Gulch. In addition, a short road segment (segment C) above the proposed new route (segment B) would also be decommissioned. This alternative would have no direct or indirect effects to coho salmon in the Middle Applegate River or CCH. Decommissioning of the road that has intercepted flow from Ferris Gulch may result in a short-term pulse of sediment into the stream system, but represents a long-term improvement that would lead to decreased frequencies and magnitudes of sediment input. Any sediment pulses due to construction of road segment B and decommissioning of segments A and C should be minimized by project design features. Furthermore, the dam located at the private quarry downstream of the project area would likely capture and store any sediment that does enter the stream as a result of this alternative, protecting CCH in lower Ferris Gulch and in the Middle Applegate River. As conditions improve over time in the segment of Ferris Gulch impacted by road segment A, a slight over-all reduction to sediment inputs into the creek can be expected. As riparian vegetation recolonizes the decommissioned road segment, a small improvement to this short section of Riparian Reserve would result. This would represent only a minor improvement to the degraded state of Ferris Gulch. Fish use (if any) in the stream would still be limited to the lower 0.3 miles by the culvert barrier located at the Ferris Gulch/HWY 238 crossing.

This alternative would have no cumulative effects to coho salmon populations or their habitat. Future management activities, such as the Ferris Bugman project are not anticipated to have negative effects to Ferris Creek.

#### *Determination of Effects to SONC coho and EFH*

This alternative has been determined to have "no effect" to SONC coho salmon, CCH or EFH.

#### No Action Alternative; Fish

The no action alternative would have no direct or indirect effects on federally listed threatened coho salmon populations, or their habitat, in the middle Applegate River. Ferris Gulch would continue to exist in its degraded state, affected by mining activities, OHV use, and poor roads, which would continue to contribute sediment to the stream system. The existing road used to access the landowners property would remain as the access route, intercepting flow from Ferris Gulch, and contributing sediment to lower-stream reaches. The dam at the private quarry would continue to function to trap and store sediments, possibly occasionally contributing these sediments to CCH in the lower reach of Ferris Gulch and the Middle Applegate River during high-flow events. Fish use (if any) in the stream would still be limited to the lower 0.3 miles by the culvert barrier located at the Ferris Gulch/HWY 238 crossing.

This alternative would have no cumulative effects to coho salmon populations or their habitat. Future management activities, such as the Ferris Bugman project are not anticipated to have negative effects to Ferris Creek.

#### Proposed Action Alternative; Hydrology

Implementation of the Proposed Action Alternative would have a positive impact on the hydrology of this area. The decommissioning of stream fords on the mainstem of Ferris Gulch and the unnamed tributary, relocation of the access road further from the stream channel, decommissioning and correction of drainage problems on several segments of road, a new stream crossing culvert designed to accommodate 100-year flood events, and road approaches to the crossing coming in perpendicular to the stream would all reduce sediment and peak flow delivery downstream, and make for a more stable road unlikely to sustain damage in major flood events. At the broader watershed scale, these positive changes would not be detectable given the high levels of cumulative effects from other sources.

#### No Action Alternative; Hydrology

The No Action Alternative would have no direct effect on the hydrology of the area. The stream ford on Ferris Gulch would continue to be impacted from OHV use and landowner access. Without the access the new road would provide, it is possible the landowner would need to install another crossing over Ferris Gulch on the landowner's property to double back to the area he is trying to access, thus increasing the indirect effects associated with the No Action Alternative. Existing roads (including the landowner's access) on BLM would continue to be at risk of washout and severe erosion in high flow events.

#### Proposed Action Alternative; Wildlife

The proposed action alternative would result in the loss of approximately 0.70 acres of mixed Douglas Fir / oak woodland habitat and 0.01 acres of riparian habitat through the construction of approximately 600 feet of new road. The loss of this small amount of habitat would have a negligible impact to the terrestrial wildlife species in the project area. The decommissioning of approximately 1000 feet of road and its subsequent return to a vegetated state would provide a small amount of habitat for a variety of terrestrial wildlife species. The cessation of use of the existing creek ford would provide a small benefit to wildlife species associated with riparian habitat. Benefits to wildlife would be indirect benefits due to increased health and function of the riparian zones and adjacent habitats currently being negatively affected by poor road location.

#### No Action Alternative; Wildlife

The no action alternative would have no effect on terrestrial wildlife populations, and no effect on wildlife habitats.

## CRITICAL ELEMENTS

The following elements of the human environment are subject to requirements specified in statute, regulation, or executive order and must be considered in all EAs.

Critical Element	Affected		Critical Element	Affected	
	Yes	No		Yes	No
Air Quality		<b>X</b>	T & E Species		<b>X</b>
ACECs		<b>X</b>	Wastes, Hazardous/Solid		<b>X</b>
Cultural Resources		<b>X</b>	Water Quality		<b>X**</b>
Farmlands, Prime/Unique		<b>X</b>	Wetlands/Riparian Zones		<b>X**</b>
Floodplains		<b>X</b>	Wild & Scenic Rivers		<b>X</b>
Nat. Amer. Rel. Concerns		<b>X</b>	Wilderness		<b>X</b>
Invasive, Nonnative Species		<b>X*</b>	Energy Resources (EO 13212)		<b>X</b>
			Environmental Justice		<b>X</b>

\*These affected critical elements could be impacted by the implementing the Proposed Action. Impacts are being avoided by project design.

\*\*These affected critical elements would be impacted by implementing the Proposed Action. The impacts are being reduced by designing the Proposed Action with Best Management Practices, Management Action/Direction, Standard and Guidelines as outlined in the Environmental Impact Statements (EIS)/Record of Decisions (*RMP*) (*USDI BLM 1995*)(*USDA FS; USDI BLM 1994*) tiered to in Chapter 1. The impacts are not affected beyond those already analyzed by the above-mentioned documents.

## **V. CONSULTATION WITH OTHERS**

An interdisciplinary team of resource specialists reviewed the proposal and all pertinent information, and identified relevant issues to be addressed during the environmental analysis.

### **EA Availability and Distribution List**

Upon completion of this EA, a legal notification was placed in the Medford Mail Tribune offering a public review and comment period. For additional information, please contact Kristi Mastrofina at (541) 618-2384.

This EA was distributed to the following agencies, organizations, and tribes:

#### **Organizations and Agencies**

Association of O&C Counties  
Audubon Society  
Headwaters  
Jackson County Commissioners  
Jackson Co. Soil and Water Conservation District  
Klamath Siskiyou Wildlands Center  
Applegate River Watershed Council  
Applegate Partnership  
Northwest Environmental Defense Center  
Oregon Department Forestry  
Oregon Natural Resources Council  
Oregon Department of Fish and Wildlife  
Oregon Department of Environmental Quality  
Rogue River National Forest (RRNF)  
The Pacific Rivers Council  
Southern Oregon University  
Southern Oregon Timber Industries  
Scott Sinner Consulting

#### **Federally Recognized Tribes**

Cow Creek Band of Umpqua Indians  
Confederated Tribes of Grand Ronde  
Confederated Tribes of Siletz  
Klamath Tribe  
Quartz Valley Indian Reservation (Shasta Tribe)  
Shasta Nation

#### **Other Tribes**

Confederated Bands [Shasta], Shasta Upper  
Klamath Indians  
Confederated Tribes of the Rogue-table Rock and Associated Tribes

## Appendix

### **AQUATIC CONSERVATION STRATEGY:**

The Aquatic Conservation Strategy (ACS) was developed to restore and maintain ecological health of watersheds and aquatic ecosystems on public lands. It includes 9 objectives, which guide BLM's management of Riparian Reserves. They and the affects of the proposed action alternative on site level (Ferris Gulch at site of road relocation), HUC 7 level (Ferris Gulch drainage), and HUC 5 level (Middle Applegate Watershed) are as follows:

*Objective 1: Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations, and communities are uniquely adapted.*

Site level: No effects at this spatial scale.

HUC 7 level: No effects at this spatial scale.

HUC 5 level: No effects at this spatial scale.

*Objective 2: Maintain and restore spatial and temporal connectivity within and between watersheds. Lateral, longitudinal, and drainage network connections include floodplains, wetlands, upslope areas, headwater tributaries, and intact refugia. These network connections must provide chemically and physically unobstructed routes to areas critical for fulfilling life history requirements of aquatic and riparian-dependent species.*

Site level: No effects at this spatial scale.

HUC 7 level: No effects at this spatial scale.

HUC 5 level: No effects at this spatial scale.

*Objective 3: Maintain and restore the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations.*

Site level: Decommissioning of the road (segment A) that intercepts flow from Ferris Gulch would allow this stream segment to recover over time and revert back to a natural channel.

HUC 7 level: No effects at this spatial scale.

HUC 5 level: No effects at this spatial scale.

*Objective 4: Maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems. Water quality must remain within the range that maintains the biological, physical, and chemical integrity of the system and benefits survival, growth, reproduction, and migration of individuals composing aquatic and riparian communities.*

Site level: No effects at this spatial scale.

HUC 7 level: No effects at this spatial scale.

HUC 5 level: No effects at this spatial scale.

*Objective 5: Maintain and restore the sediment regime under which aquatic ecosystems evolved. Elements of the sediment regime include the timing, volume, rate, and character of sediment input, storage, and transport.*

Site level: Although the proposed action may result in a short term pulse of sediment to Ferris Gulch (increased volume and rate of sediment input and transport), adherence to project design features should minimize this pulse. Over time, as the stream segment impacted by road segment A recovers, sediment impulses to the system would decline.

HUC 7 level: Any increases of sediment to Ferris Gulch as a result of this project would lead to increased storage of this sediment, possibly as far downstream as the quarry dam.

HUC 5 level: No effects at this spatial scale.

*Objective 6: Maintain and restore in-stream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing. The timing, magnitude, duration, and spatial distribution of peak, high, and low flows must be protected.*

Site level: No effects at this spatial scale.

HUC 7 level: No effects at this spatial scale.

HUC 5 level: No effects at this spatial scale.

*Objective 7: Maintain and restore the timing, variability, and duration of floodplain inundation and water table elevation in meadows and wetlands.*

Site level: No effects at this spatial scale.

HUC 7 level: No effects at this spatial scale.

HUC 5 level: No effects at this spatial scale.

*Objective 8: Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion, and channel migration and to supply amounts and distributions of coarse woody debris sufficient to sustain physical complexity and stability.*

Site level: As the stream segment influenced by road segment A recovers, the stream channel would migrate for a time, establish a channel, and allow for riparian vegetation to become established.

HUC 7 level: No effects at this spatial scale.

HUC 5 level: No effects at this spatial scale.

*Objective 9: Maintain and restore habitat to support well-distributed populations of native plant, invertebrate, and vertebrate riparian-dependent species.*

Site level: No effects at this spatial scale.

HUC 7 level: No effects at this spatial scale.

HUC 5 level: No effects at this spatial scale.